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Re: Keigley Quarry
Mining and Reclamation Plan
Sec. 15, 22, 23, 26, 27
T. 9 S., R. 1 E. SLBM
Utah County, Utah

Dear Mr. Johnson:

In the way of general comments on the preliminary reclamation plan and map we have the following suggestions to offer as additions:

1. Name the canal shown on the map and include the canal company address.
2. Provide information on representative boring or test holes in the area.
3. Assure that debris, unusable buildings, and scrap material will be removed or buried when operations cease.
4. Fence accessible areas.
5. Provide for a rick 5' high consisting of at least 50% rock upslope of pit highwalls.
6. Remove acreage figures for future work until this is planned, thus surety will be reduced.

Information provided in the MR-2 Form (Mining and Reclamation Plan) was somewhat lacking in some areas, namely grading, regrading, and revegetation. Since the abandoned pit will be for the most part a sacri-

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rice area and not much can be done in reclamation there we feel that the dump areas require more attention than "letting nature take its course".

We suggest the following modification to the Mining and Reclamation Plan (MR-2):

4. What vegetation exists on the land proposed to be affected?

We suggest that you add information on Sagebrush, Cliffrose, and grasses providing approximately 45% cover where present on the undisturbed slopes.

5. What is the range pH of soil before mining?

Add information on pH being 7 to 8 where soil exists.

11. (f) A procedure for final stabilization of disturbed materials.

Stabilizing pit waste should be addressed and tried through experimenting with specified plant species. Maximum slopes should be 40° with dump edges rounded.

Grading and Regrading

Nature cannot be depended upon to achieve this, we suggest answers as follows:

- (a) Cross section the dump regrading.
- (b) Tell how reject from mill will be spread over large waste particles.
- (c) Relate how soil treatments will be determined by trials using fertilizer, mulch, and scarification.
- (d) Tell how natural drainage patterns will be depended upon since precipitation and run-off are minimal in this area.
- (e) Say that maximum grading slope on dump edges will be 40° with dump crests rounded off.

Testing

1. (a) We assume that stability of material is based on experience in the mine.
(b) Vegetative support material should be tested for basic nutrients - N, P, K. (By the Division of Oil, Gas, and Mining, or Utah State University.)
2. Soil treatment to aid revegetation should consist of scarifying, fertilizing, and possibly mulching.
3. Probably, the surface preparation will consist of scarifying soil.

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Revegetation

Commit to revegetation of dump area and plant area and establish test plots.

1. Method will probably be drilling or broadcasting.
2. Tests will determine whether mulching will be used.
3. For the revegetation plan and schedule we suggest the following plan and schedule for initial commitment. Tests will determine changes in the plan.

SPECIES	RATE/ACRE RATE RAT	LOCATION	FACING N-S-E-W	SEASON
Fairway Crested Wheatgrass	2 lbs.	Dump and Plant Area	All Aspects	Fall
Russian Wildrye	2 lbs.	Dump and Plant Area	All Aspects	Fall
Intermediate Wheatgrass	4 lbs.	Dump and Plant Area	All Aspects	Fall
Indian Ricegrass	2 lbs.	Dump and Plant Area	All Aspects	Fall
Bluebunch Wheatgrass	2 lbs.	Dump and Plant Area	All Aspects Aspects	Fall
Stansbury Cliffrose	2 lbs.	Dump and Plant Area	All Aspects	Fall
Rubber Rabbitbrush	1 lbs.	Dump and Plant Area	All Asp Aspects	Fall
*European Sage	50 Stems.	Dump and Plant Area	All Aspects	Fall
Yellowsweet Clover	1 lbs.	Dump and Plant Area	All Aspects	Fall
Alfalfa	1 lbs.	Dump and Plant Area	All Aspects	Fall

* Transplants

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4. The answer here will be YES with very limited wildlife use and no protection necessary.
5. We suggest that irrigation might be used to establish vegetative cover but will not be used on an continuing basis.
6. Probably no maintenance procedure is planned at this time except for possible initial irrigation.

We feel that with your adoption of these suggestions you will have a viable plan that will be in concert with the Mined Land Reclamation Act of 1975. If you have an alternative proposal, present it to us for review.

Thank you for your cooperation in this matter.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

Ronald W. Daniels
Coordinator of Mined
Land Development

RWD/lm